

### Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the present application.

1. (currently amended) A method of modifying cell structure comprising:  
introducing into a mammalian cell either biliverdin reductase or a  
~~fragment or variant thereof, or a nucleic acid molecule encoding biliverdin reductase or a~~  
~~fragment or variant thereof~~ under conditions effective to express biliverdin reductase ~~or the~~  
~~fragment or variant thereof~~, thereby increasing the intracellular concentration of biliverdin  
reductase, ~~or the fragment or variant thereof~~, and modifying the structure of the mammalian  
cell,

wherein the modified cell structure is enhanced cell size, actin  
microspike formation, polar cell morphology, or a combination thereof.

2. (canceled)

3. (withdrawn) The method according claim 1 wherein  
biliverdin reductase is introduced into the mammalian cell.

4-7 (canceled)

8. (previously presented) The method according to claim 1 wherein  
a nucleic acid molecule encoding biliverdin reductase is introduced  
into the mammalian cell.

9. (previously presented) The method according to claim 8 wherein said  
introducing comprises:

transfecting the mammalian cell with an infective transformation  
vector comprising the nucleic acid encoding biliverdin reductase.

10. (original) The method according to claim 9 wherein the infective  
transformation vector is an adenovirus vector or a retrovirus vector.

11 (original) The method according to claim 1 wherein the mammalian  
cell is a stem cell, a neuronal or glial cell, a vascular smooth muscle cell, a skeletal muscle  
cell, an epithelial cell, or a nucleated blood cell.

12. (original) The method according to claim 1 wherein the mammalian cell is *in vitro*.

13-26 (canceled)